



**BRAKE
MANUFACTURERS
COUNCIL**

A Product Line Group of
Motor & Equipment
Manufacturers Association

Lessons Learned from the Brake Manufacture Council's 'Passenger Car and Light Truck Voluntary Friction Certification Program'



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Introduction to BMC-BEEP

- In response work completed by NHTSA 1987 and documented using SAE Technical Paper NO. 870267 from Dick Radlinski and others on *"The effect of Aftermarket Linings on Brake Efficiency"*,
- ".... that aftermarket brake friction materials should not deteriorate vehicle braking performance below the applicable federal motor vehicle safety standard, and recognizes that on-vehicle, dynamometer, or other equivalent testing or engineering or computer analyses may be employed by manufacturers of replacement friction in making good faith efforts to determine FMVSS performance."



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Background- BMC BEEP

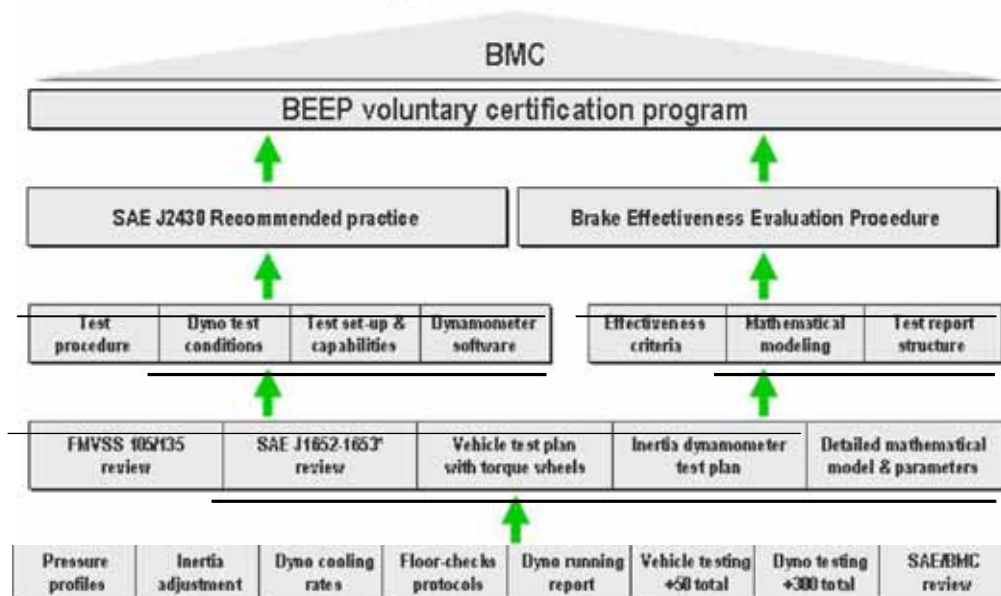
- Two phase program:
 - SAE J2430 Dynamometer Test,
 - Follows key sections of the FMVSS 105 or 135,
 - BMC BEEP model,
 - Vehicle Specific
- +10 years of industry collaboration,
 - +50 fully instrumented vehicle tests,
 - +300 inertia dynamometer test,
- Designed to be an open protocol to the industry and other parties interested on its usage and understanding.



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Program structure



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*obsolete as of 05/2002



Lessons Learned

- Continuous commitment and progressive alignment among manufacturers, SAE committees, consultants and testing laboratories,
- The BEEP model was found to be similar to various Tier 1 suppliers proprietary brake system modeling,
- Very good correlation between various dynos and test facilities once the set-up and test practices are repeatable,
- Various dynos at several test facilities currently running SAE J2430 using the BEEP testing under the same protocol,
- Continuous work by the BMC promoting and educating on BEEP is giving a common ground for vehicle specific effectiveness characterization,
- Technical committees to verify and overview the validity and consistency of the program were and are critical to the success of the program.



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Thank you.



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